



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/583,131	05/11/2007	Friedel Michel	4033-1002	1249
<small>465</small> YOUNG & THOMPSON 209 Madison Street Suite 500 ALEXANDRIA, VA 22314			<small>7590</small> EXAMINER NIESZ, JASON KAROL	
			ART UNIT 3751	PAPER NUMBER
			MAIL DATE 07/24/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/583,131

Applicant(s)

MICHEL ET AL.

Examiner

JASON K. NIESZ

Art Unit

3751

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 May 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6, 10-12 and 15-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 10-12 and 15-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 June 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the measurement gas container must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

Claim 1 is objected to because, in line 9, "filing" should be "filling". Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-6, 11, 12 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kesten et al. (De 10107895 A1) in view of Welz (US Patent 6,726,241 B2) in further view of Wolff et al (US Patent 4,715,786).

Another patent in the same family as Kesten entered the US national stage as application 10/471,926 and published as US 2008/0016884 on June 6, 2007. This application will be used as a translation of Kesten. References to Kesten will refer to the US application unless otherwise indicated.

In Re claim 1 Kesten discloses a method for filling a compressed-gas container in which a gas is introduced into a cooled compressed-gas container (Page 1, paragraph 9).

Kesten doesn't disclose that the compressed-gas container is used in an airbag system or that the determination and monitoring of the filling quantity takes place gravimetrically.

Welz discloses a storage tank for an airbag system comprising a gas under pressure (abstract).

Wolff discloses gravimetric measurement of fluid quantity (Column 13, lines 10-15).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the Kesten method to fill up the compressed gas tank for an airbag system, it being obvious that the Kesten method can be used any time a container must be filled with a compressed-gas. Furthermore, it would have been obvious to add a gravimetric measurement of fill quantity as taught by Wolff, in order to prevent overfill of the compressed gas tank.

In Re claim 2 Kesten discloses generating pressure in the filled and closed compressed-gas tank by warming (Page 1, paragraph 9).

In Re claims 3 and 15 Kesten discloses the pressure tank warming up to the ambient temperature.

In Re claim 4 with reference to Figure 1 Kesten discloses a cooling bath (2) for use in cooling the compressed-gas tank during filling process (Page 2, paragraph 23).

In Re claim 5 Kesten discloses the use of liquid nitrogen at a temperature of -196 C to cool the compressed gas tank (Page 1, paragraph 11).

In Re claim 6 Kesten discloses the use of liquid nitrogen at -196 C to cool the compressed gas tank (Page 1, paragraph 11). Kesten further discloses the use of a liquid nitrogen heat exchanger to cool the fill gas to -196 C (Page 2, paragraph 27). The

examiner notes that the filling would take place at a constant temperature because the fill gas and the compressed-gas tank are both cooled to the same temperature.

In Re claim 11 Kesten discloses the method whereby the compressed-gas tank is filled with a gas mixture by filling with a previously produced gas mixture (Page 3, claim 1).

In Re claim 12 Kesten discloses the use of a compressed gas source at 100 bar (Page 1, paragraph 11).

4. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kesten in view of Wolff in further view of Keneavy (US Patent 4,922,973).

In Re claim 10 Kesten in view of Wolff as applied to claim 1 above discloses all of the limitations, but doesn't disclose a method for filling compressed gas tanks characterized that the introduction of cryogenically liquefied gas into the compressed-gas container is effected by condensation of a gas in the cooled compressed-gas container. Keneavy discloses a method for filling a recovery tank with refrigerant gas comprising cooling the tank to the point that the gas condenses into liquid form in said tank (abstract). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to introduce liquefied gas to the compressed-gas tank of Kesten through condensing said gas in the cooled compressed-gas tank, as taught by Keneavy, in order to adapt the Kesten method for use with a fill gas having a boiling point above that of liquid nitrogen.

5. Claims 16-21 and 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kesten in view of Welz in view of Bastian (US Patent 5,900,538) in further view of Keneavy.

In Re claim 16 Kesten discloses a method for filling a compressed-gas container in which a gas is introduced into a cooled compressed-gas container (Page 1, paragraph 9).

Kesten doesn't disclose the use of the method to fill an airbag gas container, that determination and monitoring of the filling quantity takes place manometrically, or a method for filling compressed gas tanks characterized that the introduction of cryogenically liquefied gas into the compressed-gas container is effected by condensation of a gas in the cooled compressed-gas container.

Welz discloses a storage tank for an airbag system comprising a gas under pressure (abstract).

Bastian discloses manometric measurement of pressure (Column 12, line13) because the temperature of the compressed-gas tank in Kesten remains constant during filling a pressure measurement can be used to calculate quantity.

Keneavy discloses a method for filling a recovery tank with refrigerant gas comprising cooling the tank to the point that the gas condenses into liquid form in said tank (abstract).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the Kesten method to fill a compressed-gas tank for an airbag system, it being obvious that the Kesten method can be used any time a

container must be filled with a compressed-gas. Furthermore, it would have been obvious to use a manometric measurement to determine fill quantity to avoid overfilling the compressed-gas tank. Finally, it would have been obvious to introduce liquefied gas to the compressed-gas tank of Kesten through condensing said gas in the cooled compressed-gas tank, as taught by Keneavy, in order to adapt the Kesten method for use with a fill gas having a boiling point above that of liquid nitrogen.

In Re claim 17 Kesten discloses generating pressure in the filled and closed compressed-gas tank by warming (Page 1, paragraph 9).

In Re claims 18 and 25 Kesten discloses the pressure tank warming up to the ambient temperature.

In Re claim 19 with reference to Figure 1 Kesten discloses a cooling bath (2) for use in cooling the compressed-gas tank during filling process (Page 2, paragraph 23).

In Re claim 20 Kesten discloses the use of liquid nitrogen at a temperature of -196 C to cool the compressed gas tank (Page 1, paragraph 11).

In Re claim 21 Kesten discloses the use of liquid nitrogen at -196 C to cool the compressed gas tank (Page 1, paragraph 11). Kesten further discloses the use of a liquid nitrogen heat exchanger to cool the fill gas to -196 C (Page 2, paragraph 27). The examiner notes that the filling would take place at a constant temperature because the fill gas and the compressed-gas tank are both cooled to the same temperature.

In Re claim 23 Kesten discloses the method whereby the compressed-gas tank is filled with a gas mixture by filling with a previously produced gas mixture (Page 3, claim 1).

In Re claim 24 Kesten discloses the use of a compressed gas source at 100 bar (Page 1, paragraph 11).

6. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kesten in view of Bastian in further view of Keneavy and in further view of Psaros (US Patent 6,032,665).

In Re claim 22 Kesten in view of Bastian in further view of Keneavy as applied to claim 16 above discloses all the limitations, but doesn't disclose the use of a measurement gas container. With reference to Figure 6 Psaros discloses the use of an intermediate tank to measure a dosing quantity (88) (Column 2, lines 1-9). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Kesten in view of Bastian and Keneavy method through the addition of an intermediate measurement tank, in order to provide another mechanism for guaranteeing that the proper supply of fluid reaches each compressed-gas tank.

Terminal Disclaimer

7. The terminal disclaimer filed on 05/21/2008 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of co-pending Patent Application No. 10/576,013 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Double Patenting

8. Claims 1 and 12 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 3 of copending Application No. 10/471,926 in view of Wolff. Although the conflicting claims

are not identical, they are not patentably distinct from each other because, for example, application 10/471,926 discloses all the limitations of the instant application but doesn't monitor the filling quantity gravimetrically. Wolff discloses gravimetric measurement of fluid quantity (Column 13, lines 10-15). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to add a gravimetric measurement of fill quantity, in order to prevent over fill of the compressed-gas tank.

This is a provisional obviousness-type double patenting rejection.

Response to Arguments

9. Applicant's arguments filed 05/21/2008 have been fully considered but they are not persuasive.

In Re the applicant's argument on page 10 that Kesten doesn't disclose a container being part of an "airbag system" the examiner notes that the applicants claim of a "method for filling a compressed-gas container, in particular a compressed-gas container in an airbag system" does not limit the claim beyond the scope of the prior art. The Kesten method for filling containers could be used to fill containers in an airbag system.

In Re the applicant's argument on pages 10 and 11 regarding the Wolff reference, the Wolff reference discloses a gravimetric measurement of a fill quantity. The fact that this measurement is used in a calibration step does not in any way limit this gravimetric measurement to calibration processes or prevent this reference from teaching one of ordinary skill in the art that a gravimetric measurement can be used to determine a fill quantity.

In Re the applicant's argument on page 11 regarding the Bastian reference, the Bastian reference is used to teach manometric pressure measurement. The specific manometric capsule from Bastian is not necessary for this measurement as a manometer is commonly known in the art as a pressure measuring device. Once taught by the Bastian reference to measure pressure manometrically, one of ordinary skill in the art would know to use one of these common devices to perform the measurement.

In Re the applicant's argument on page 12 regarding the Keneavy reference, the applicant has submitted an argument with no supporting evidence.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON K. NIESZ whose telephone number is (571)270-3920. The examiner can normally be reached on mon-fri 9-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Greg Huson can be reached on (571) 272-4887. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jason K Niesz
Examiner
Art Unit 3751

/Timothy L Maust/
for Gregory Huson, SPE of Art Unit 3751